

CLAIMS

1. A process for the production of spray-dried lacticin 3147 powder, for use as a food ingredient, comprising
- 5 (a) inoculating a medium with a lacticin 3147-producing strain of bacteria;
- (b) fermenting the inoculated medium;
- (c) adjusting the pH of the fermentation to pH 6.3 to 6.7;
- (d) inactivating the bacterial fermentate;
- 10 (e) evaporating the fermentate of step (d).
2. A process as claimed in claim 1 wherein the medium is selected from milk or dairy-based powders including demineralized whey powder, reconstituted skimmed milk powder, whey protein concentrate powder, pasteurised whole milk, Cheddar cheese whey, yeast powders or synthetic laboratory-type media such as LM17 and TY
- 15 broth.
3. A process as claimed in claim 1 or 2 wherein the concentrate of step (e) is cooled, seeded with lactose at about 0.1% w/w and allowed to crystallise at a cooling rate of about 1°C per hour.
- 20 4. A process as claimed in any preceding claim wherein the inoculated medium is fermented at about 30°C for about 6 to 24 hours.
- 25 5. A process as claimed in any preceding claim wherein the pH of the fermentation is adjusted to about pH 6.5.
6. A process as claimed in any preceding claim whenever the fermentate is inactivated by pasteurisation or ultra-high temperature treatment.
- 30 7. A process as claimed in claim 6 wherein if the fermentate is pasteurised, it is pasteurised at about 72°C for about 15 minutes.
8. A process as claimed in any preceding claim wherein the fermentate of step (d) is evaporated to about 6°C to about 40% total solids.
- 35 9. A process as claimed in any preceding claim wherein the crystallised concentrate is spray-dried.

10. A process as claimed in any preceding claim substantially as described herein.

11. A spray-dried lacticin 3147 powder whenever produced by a process as claimed in any of claims 1 to 10.

5 12. Spray-dried lacticin 3147 having the ability to inhibit organisms which are not resistant to lacticin 3147, and preferably having an activity of greater than about 20,000 AU/ml, preferably about 30,000 AU/ml, more preferably about 40,240 AU/ml.

10 13. A food product comprising a spray-dried lacticin 3147 as claimed in claim 11 or claim 12 or as produced by a process as claimed in any of claims 1 to 10.

15 14. A food product as claimed in claim 12 which is selected from an infant milk formulation, a sauce, a mayonnaise, a dessert, a custard, a tinned food such as a vegetable or meat product, a yoghurt, a soup or a bakery product.

15 15. A food product as claimed in claim 13 and 14 which has been subjected to increased hydrostatic pressure, preferably in the range 150 to 800 MPa.